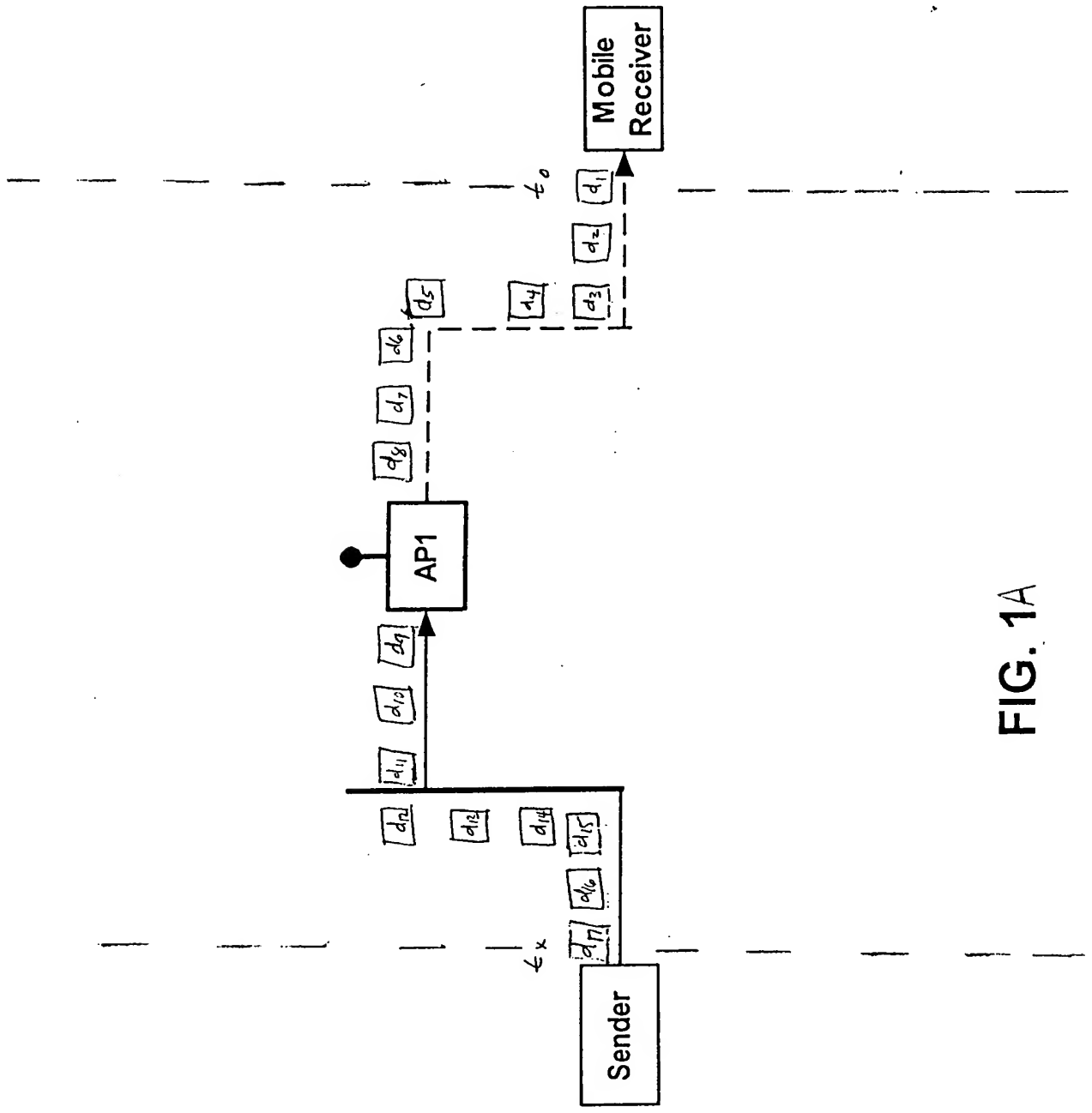

FIG. 1A

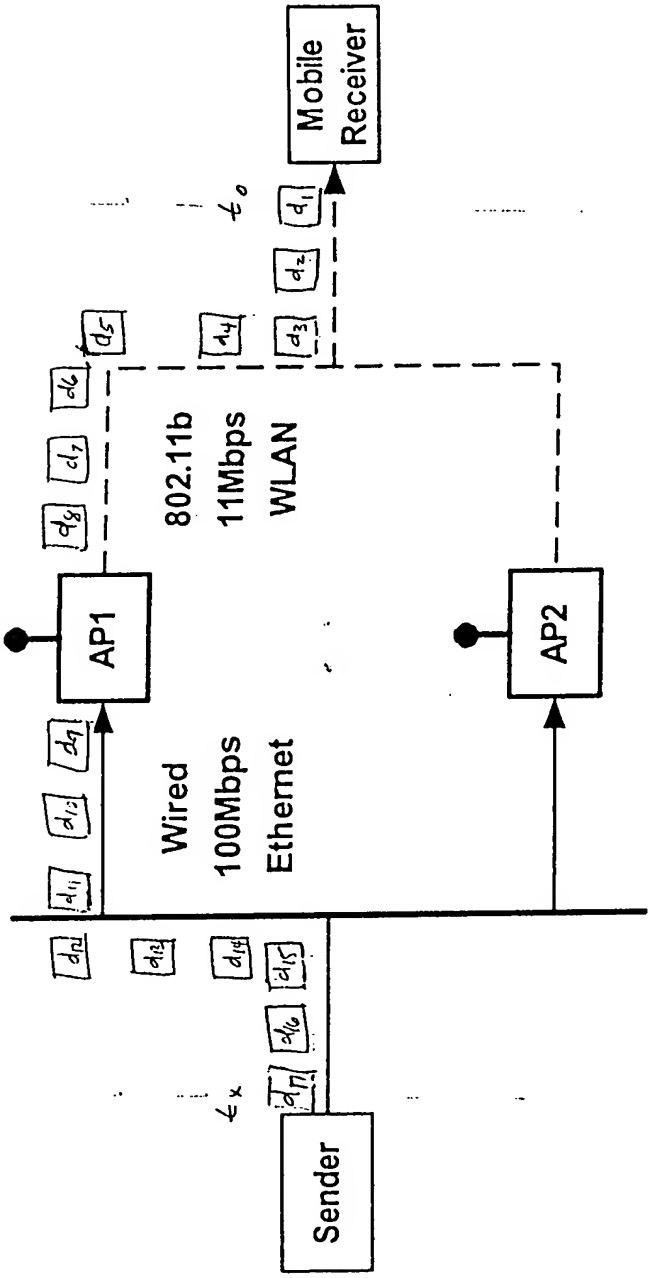
Mobile Receiver
AP1
AP2
802.11b 11Mbps WLAN
Wired 100Mbps Ethernet
Sender

FIG. 1B

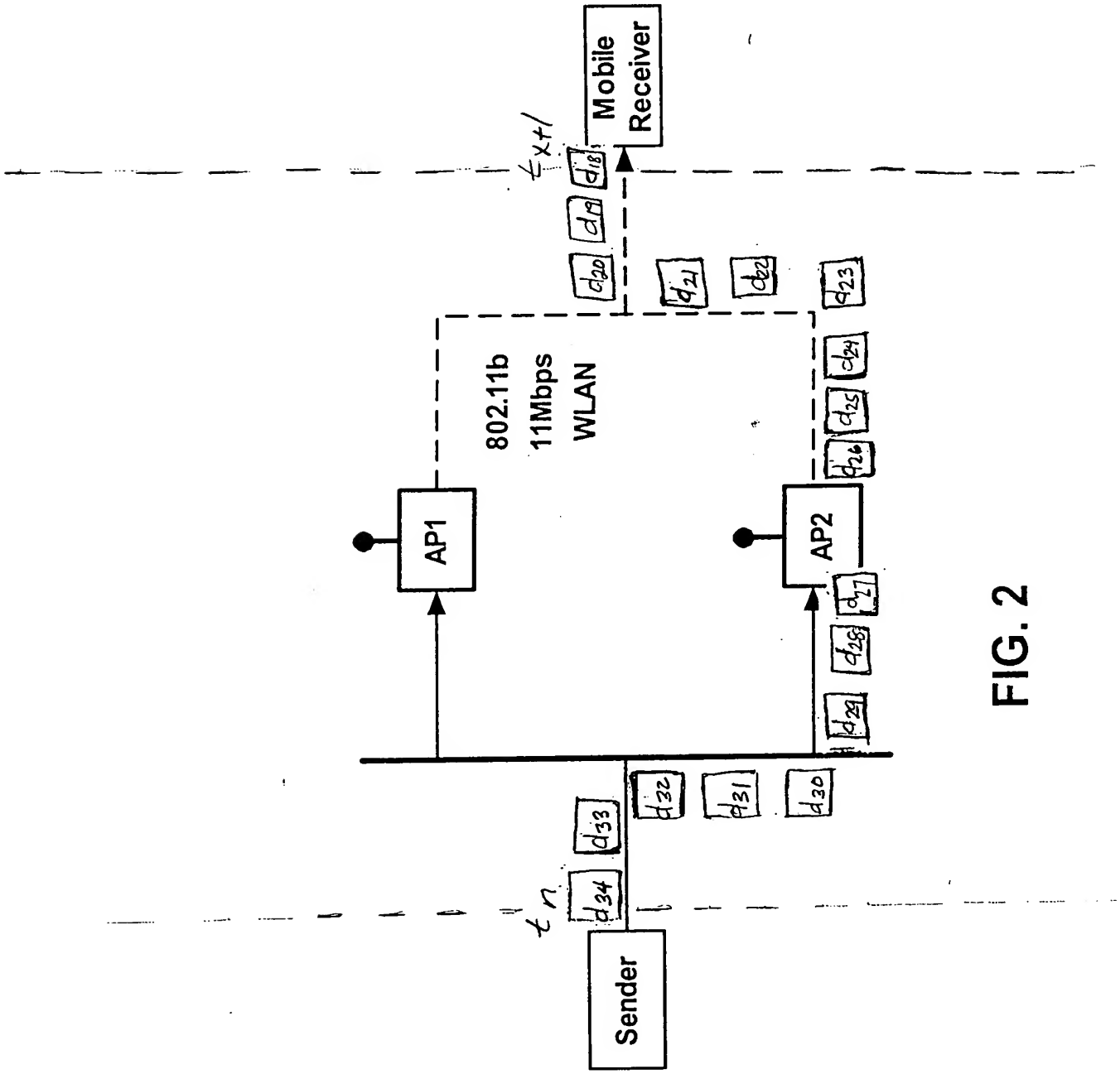

FIG. 2

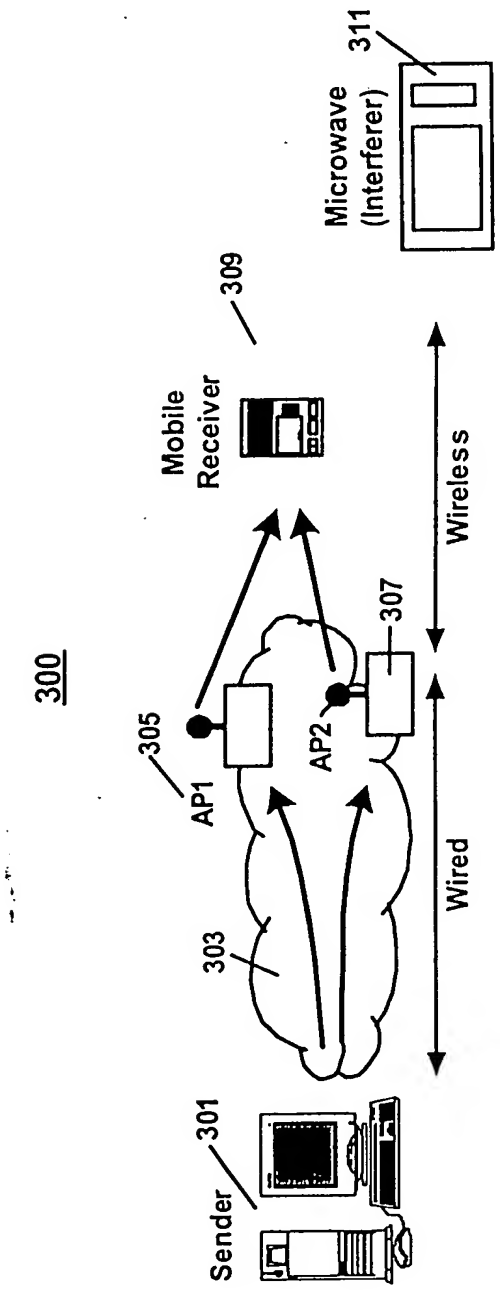
300
Sender
301
303
AP1
305
AP2
307
Mobile Receiver
309
Microwave (Interferer)
311
Wireless
Wired

FIG. 3

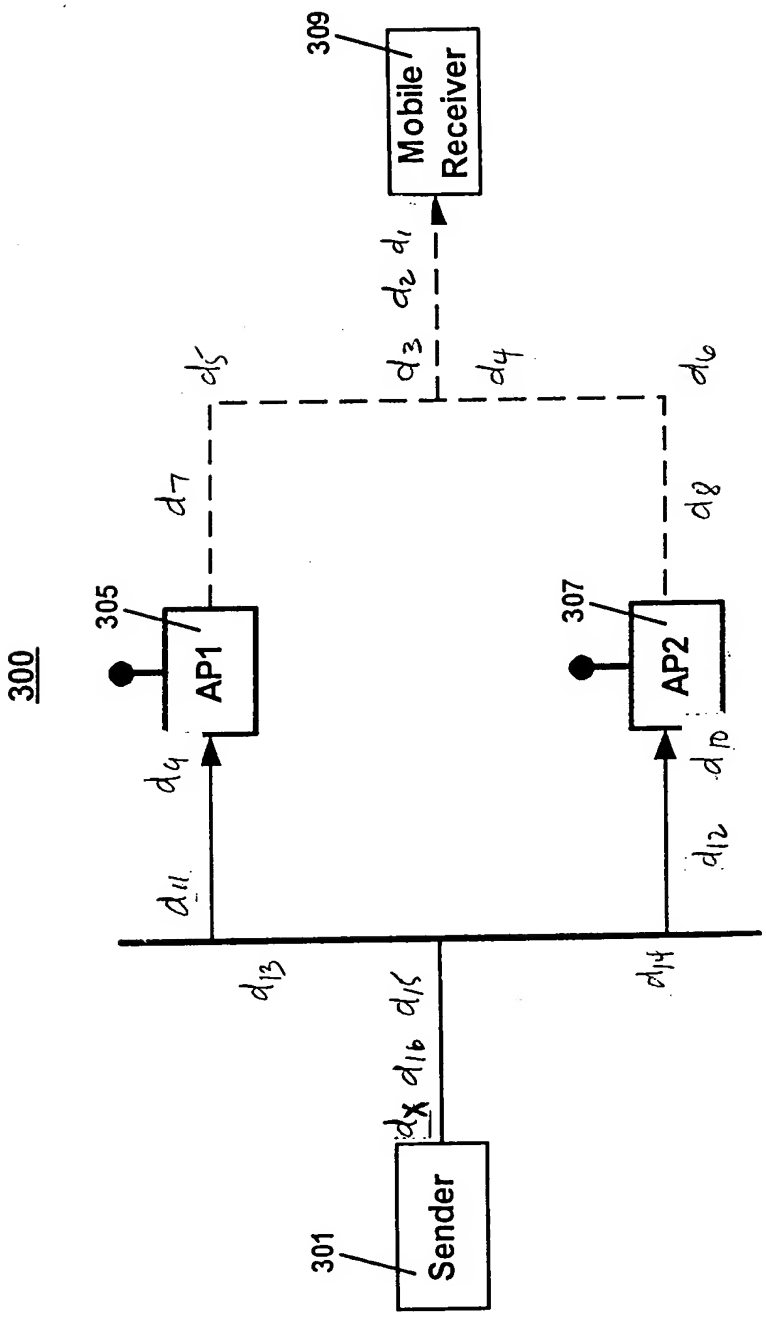
300
309
Mobile Receiver
305
AP1
307
AP2
301
Sender
d_1
d_2
d_3
d_4
d_5
d_6
d_7
d_8
d_9
d_{10}
d_{11}
d_{12}
d_{13}
d_{14}
d_{15}
d_{16}
d_X

FIG. 4A

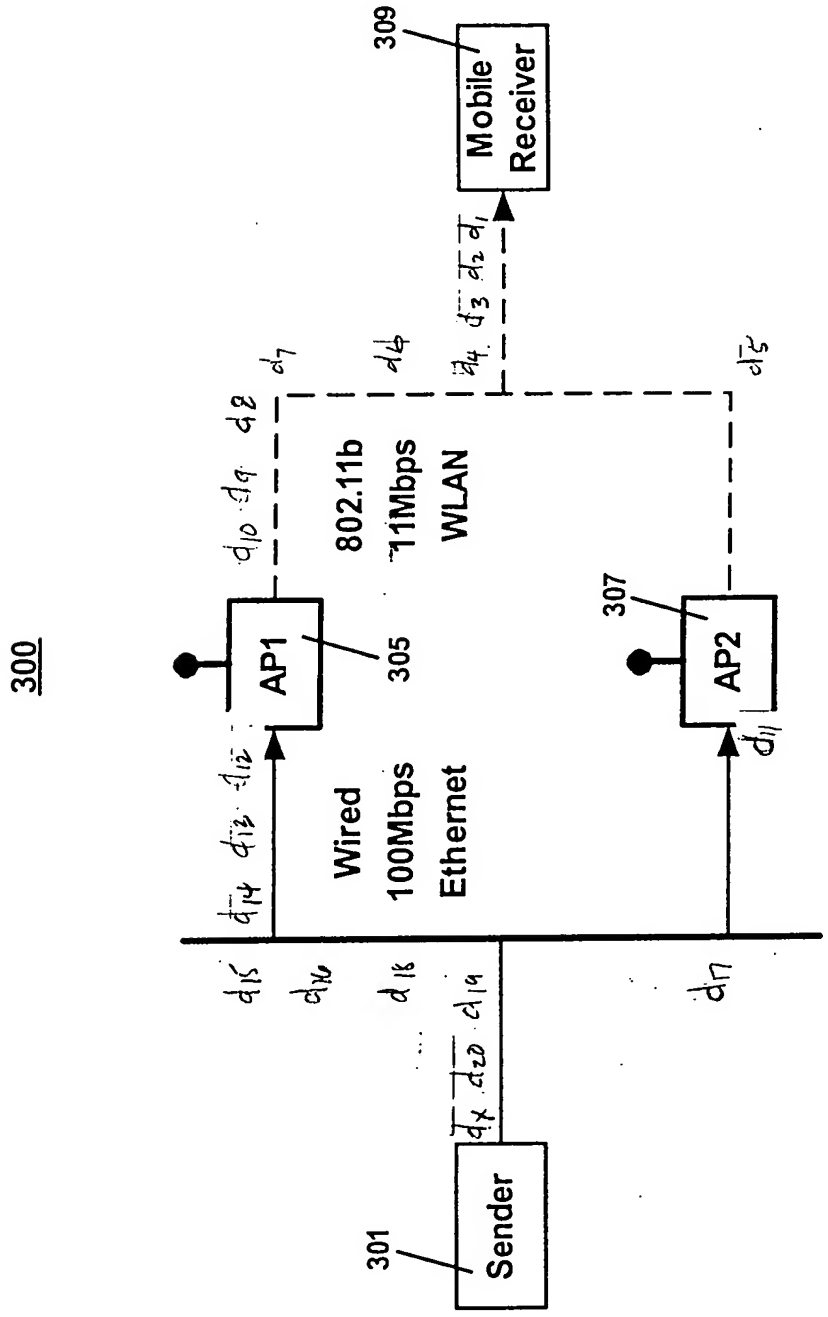
300
309
Mobile Receiver
AP1
305
802.11b 11Mbps WLAN
307
AP2
Wired 100Mbps Ethernet
301
Sender

FIG. 4B

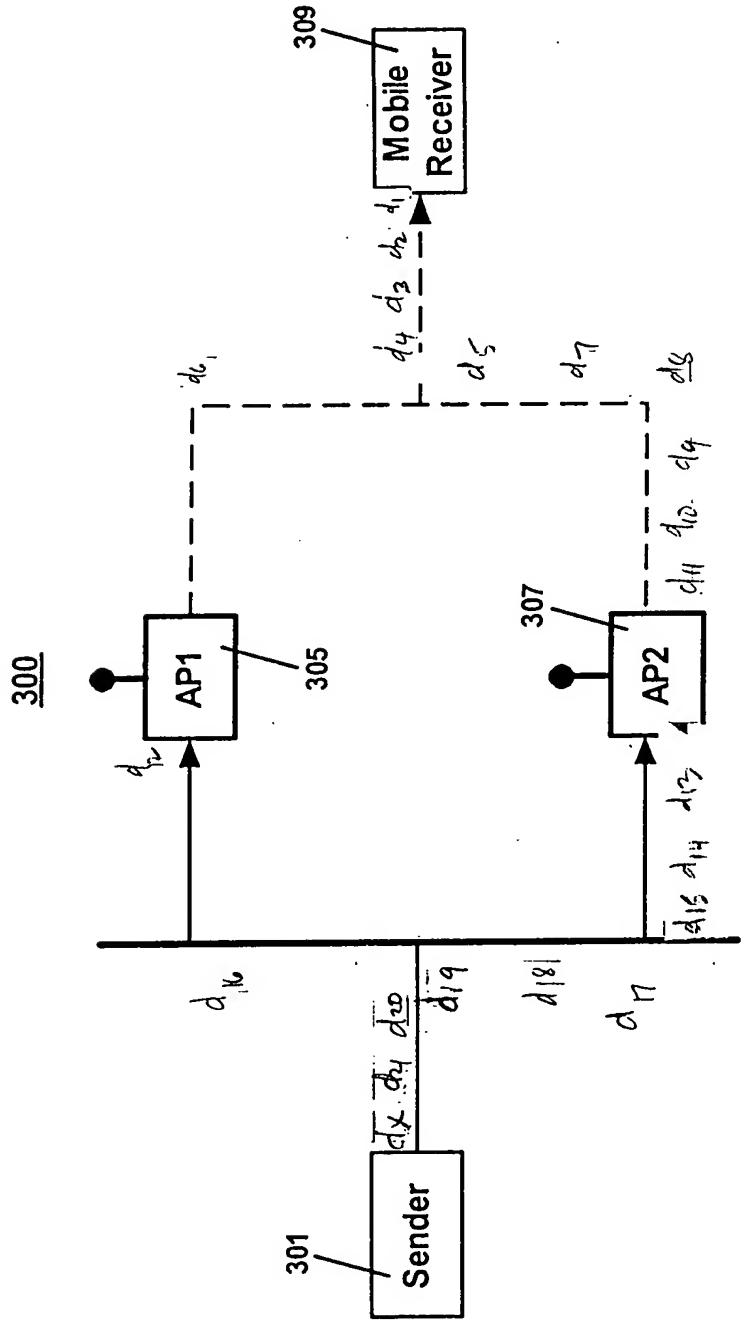

FIG. 4C

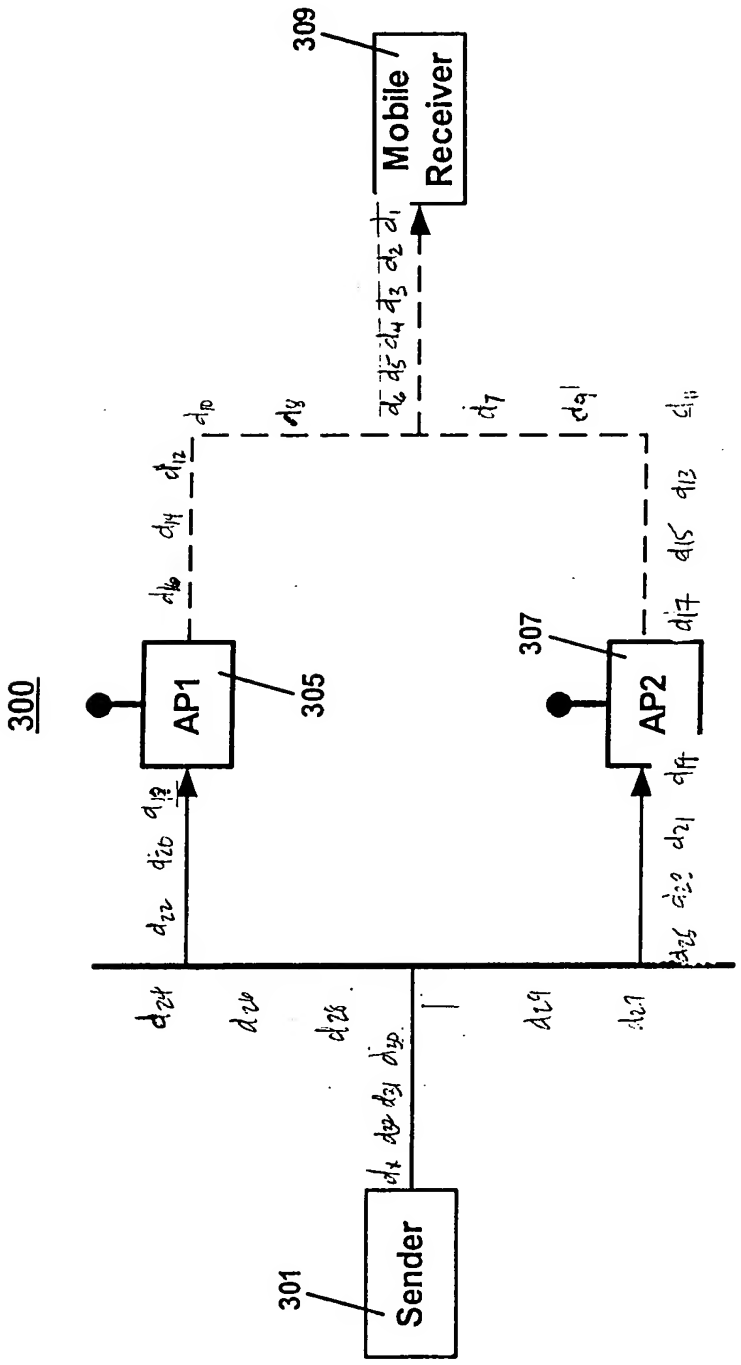

FIG. 4D

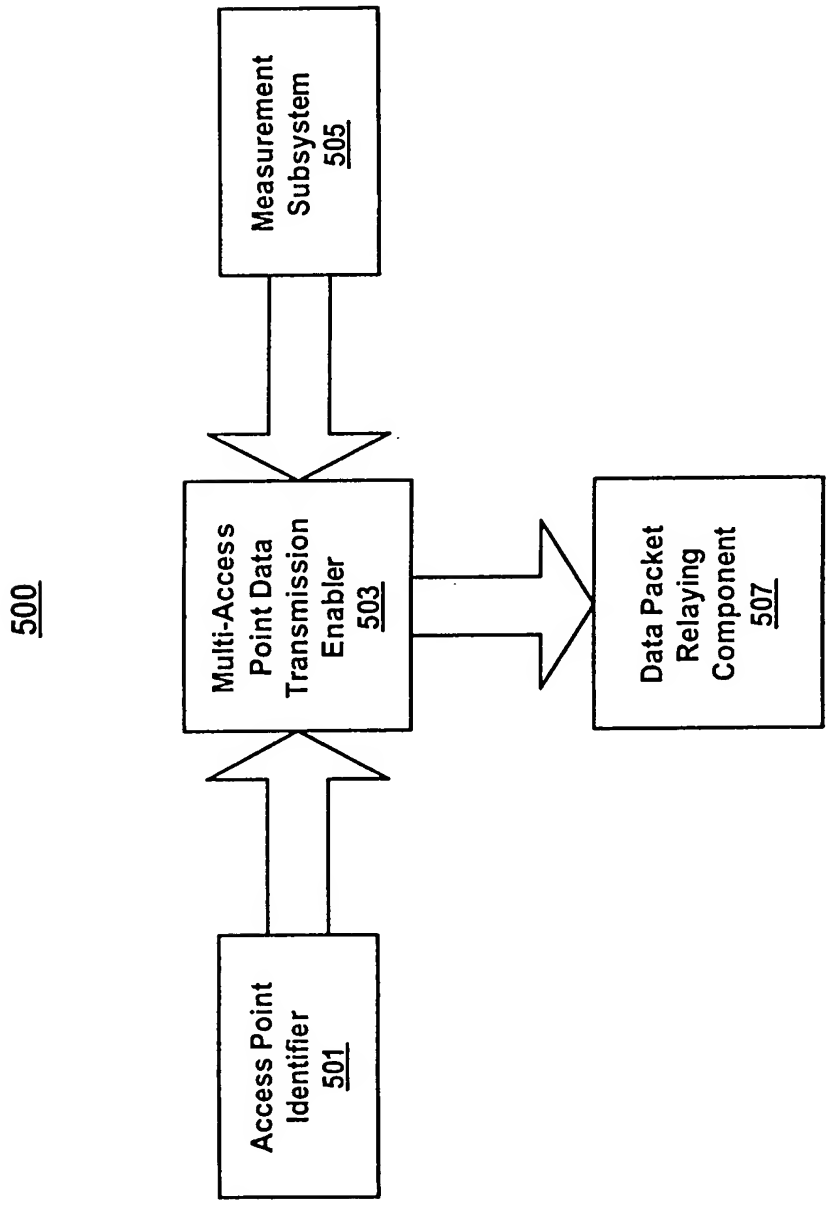
500
Measurement Subsystem 505
Multi-Access Point Data Transmission Enabler 503
Data Packet Relaying Component 507
Access Point Identifier 501

FIG. 5

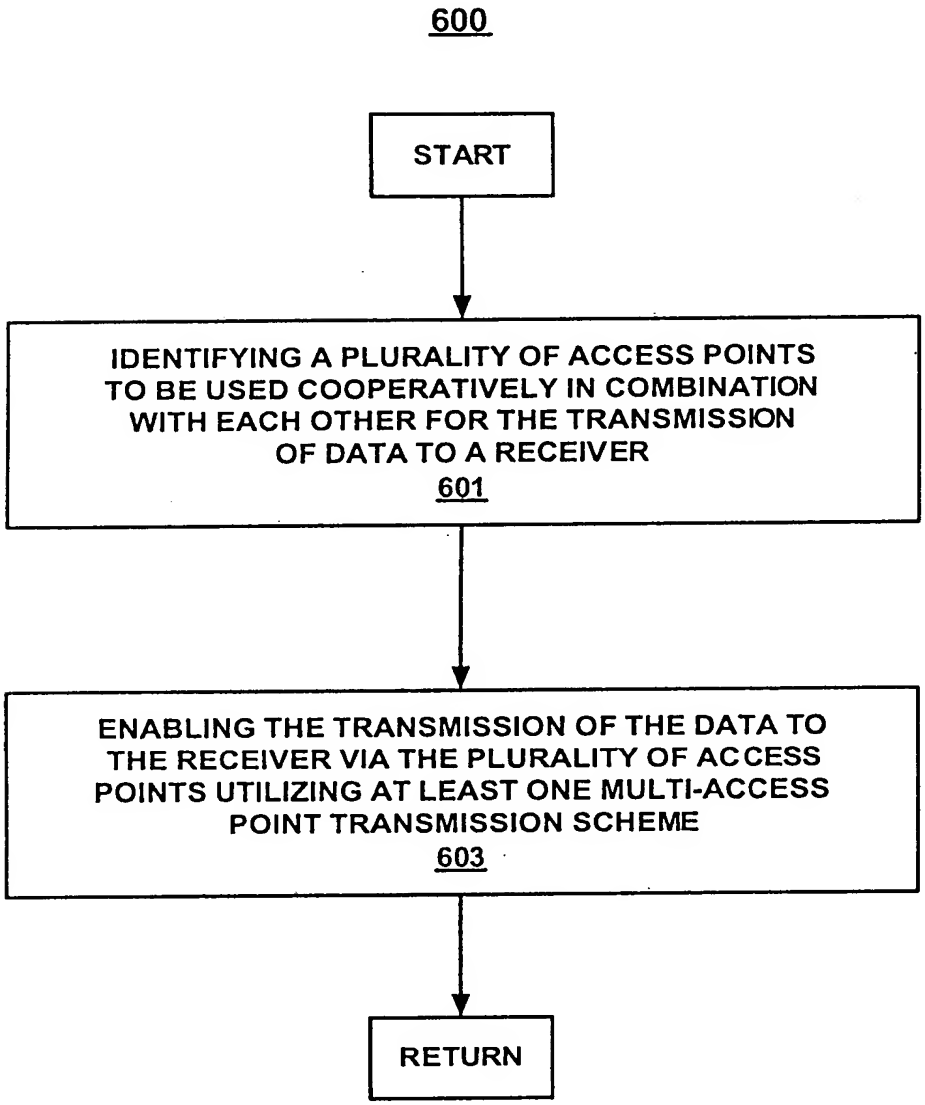
600
START
IDENTIFYING A PLURALITY OF ACCESS POINTS TO BE USED COOPERATIVELY IN COMBINATION WITH EACH OTHER FOR THE TRANSMISSION OF DATA TO A RECEIVER
601
ENABLING THE TRANSMISSION OF THE DATA TO THE RECEIVER VIA THE PLURALITY OF ACCESS POINTS UTILIZING AT LEAST ONE MULTI-ACCESS POINT TRANSMISSION SCHEME
603
RETURN

FIG. 6

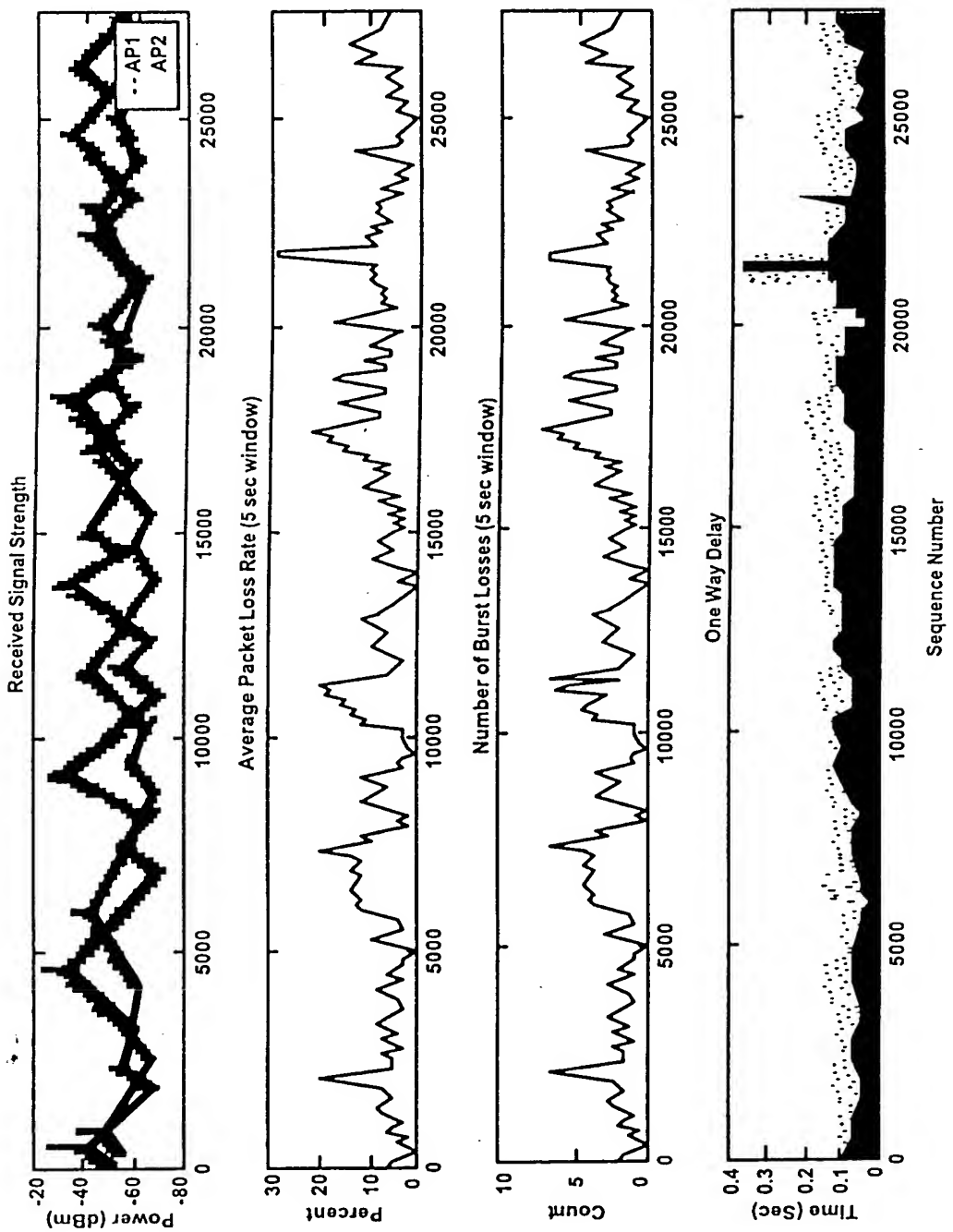
Received Signal Strength
Power (dBm)
-20
-40
-60
-80
AP1
AP2
Average Packet Loss Rate (5 sec window)
Percent
30
20
10
0
Number of Burst Losses (5 sec window)
Count
10
5
0
One Way Delay
Time (Sec)
0.4
0.3
0.2
0.1
0
0
5000
10000
15000
20000
25000
Sequence Number

FIG. 7

Table 1.

Scheme	Delay Threshold (D_{thr})									
	40ms			80ms			∞			
	PLR	PLR_B	Bursts	PLR	PLR_B	Bursts	PLR	PLR_B	Bursts
AP1	16.41	11.97	956	8.32	4.98	386	6.56	2.86	288
AP2	18.20	13.29	1074	9.00	5.32	415	7.00	3.01	323
Balanced	17.19	5.48	545	8.58	1.45	131	6.70	0.63	67
Site Selection	13.89	9.01	818	6.00	2.74	243	4.58	1.35	144
Oracle	3.73	2.06	184	0.92	0.59	38	0.26	0.13	9

FIG. 8

Table 2.

Scheme	Sequence							
	Foreman (35.8 dB at 156.2 kb/s)		Claire (39.6 dB at 39.2 kb/s)		Mother & Daughter (36.2 dB at 68.6 kb/s)		Salesman (34.9 dB at 67.6 kb/s)	
	$PSNR_{Avg}$	N_{thresh}	$PSNR_{Avg}$	N_{thresh}	$PSNR_{Avg}$	N_{thresh}	$PSNR_{Avg}$	N_{thresh}
AP1	24.34	71	31.61	8	31.23	15	30.19	16
AP2	24.01	69	31.05	9	31.12	17	29.85	10
Balanced	24.40	82	32.78	6	31.81	9	30.76	7
Site Selection	25.77	58	34.11	2	32.79	4	32.03	3
Oracle	31.58	7	37.11	1	35.12	2	33.92	2

FIG. 9

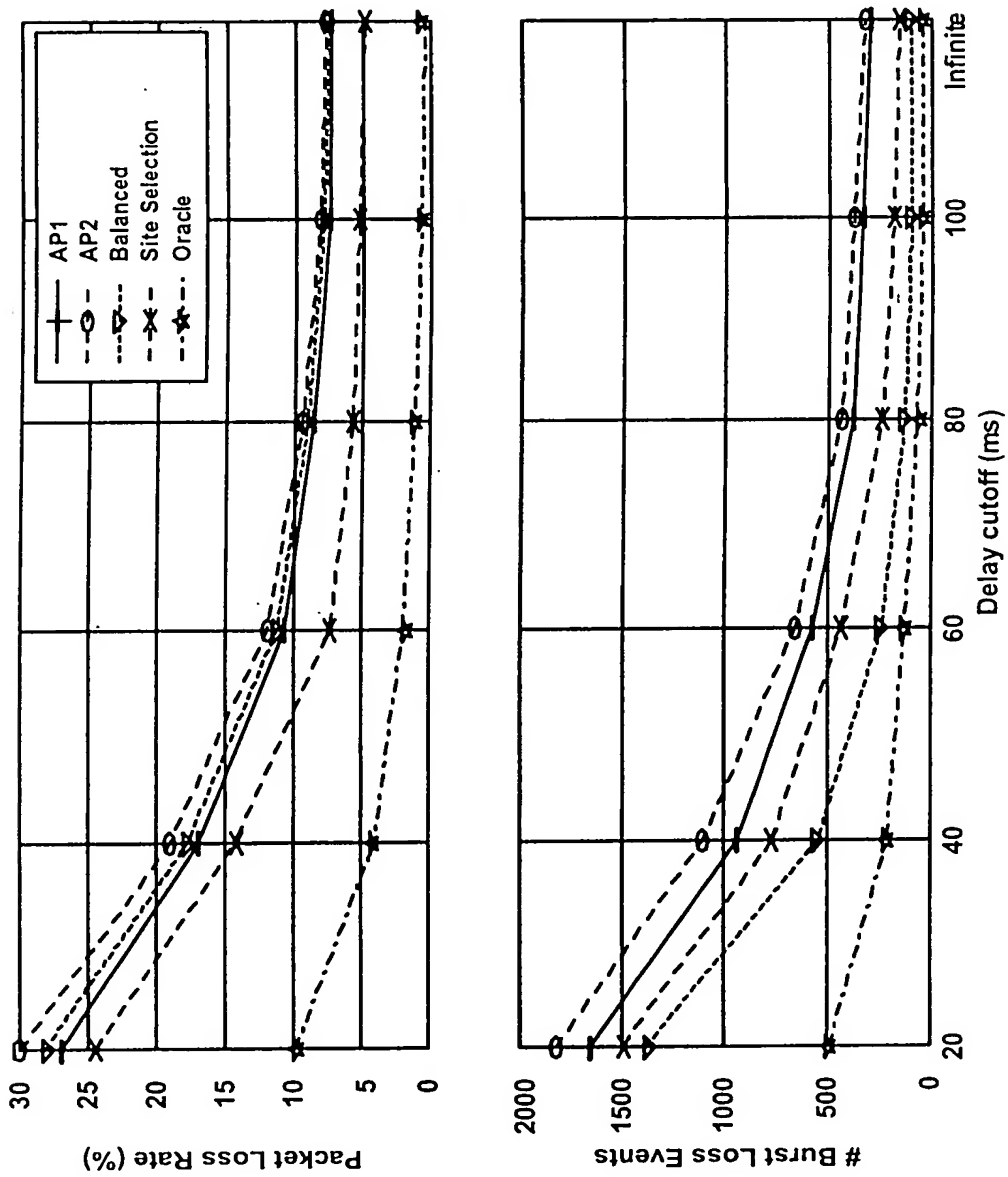
AP1
AP2
Balanced
Site Selection
Oracle
Packet Loss Rate (%)
30
25
20
15
10
5
0
Burst Loss Events
2000
1500
1000
500
0
20
40
60
80
100
Infinite
Delay cutoff (ms)

FIG. 10A

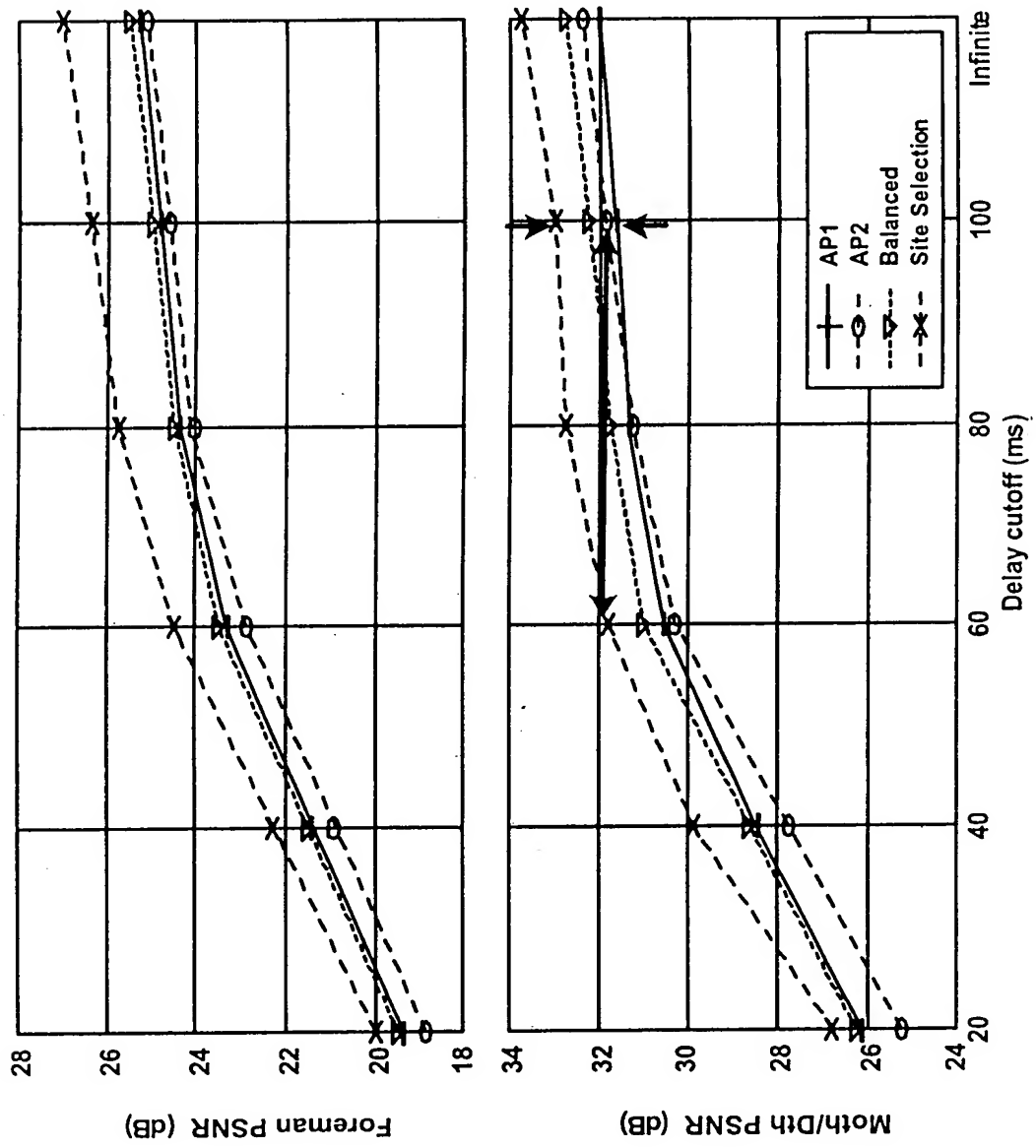
Foreman PSNR (dB)
28
26
24
22
20
18
Moth/Dth PSNR (dB)
34
32
30
28
26
24
20
40
60
80
100
Infinite
Delay cutoff (ms)
AP1
AP2
Balanced
Site Selection

FIG. 10B